REMARKS

Claims 1 and 3 are amended in order to more particularly point out, and distinctly claim the subject matter which the Applicants regard as their invention. The Applicants respectfully submit that no new matter has been added.

Independent Claim 1, as amended, is to a method of automatically marking an article which is transferred in one direction, by storing in advance a pattern for coloring an outer surface of the article with a plurality of coloring agents of respective colors different from each other, detecting a transfer speed of the article with a pair of rotors, outputting a pulse signal from the rotors to a pulse count circuit, counting a number of the pulse signals with the pulse count circuit, supplying the coloring agents, supplying pressurized gas into a coloring agent supply source, spouting a plurality of the coloring agents of respective specific amount, as a single drop at a time, to form aligned spots on the outer surface of the article, from a plurality of separate and spaced nozzles, for each respective color, arranged in a longitudinal direction of the article being transferred, each nozzle having a separate coloring agent supply source connected therewith and a valve disposed between the nozzle and the coloring agent supply source and connected to the pulse count circuit, toward the outer surface of the article according to the pattern in response to a signal from the pulse count circuit, and forming round spots in a plan view on the outer surface of the article, where the coloring agents, as a single drop at a time, are spouted toward the outer surface of the article with the aid of bias of the supplied pressurized gas.

Independent Claim 3, as amended, is to a device for automatically marking an article which is transferred in one direction, including storing means for storing a pattern for coloring an outer

surface of the article with a plurality of coloring agents of respective colors different from each other, a pair of rotors for detecting a transfer speed of the article, a pulse count circuit for receiving a pulse signal from the rotors and counting a number of the pulse signals, a plurality of separate and spaced nozzles, for each respective color, arranged in a longitudinal direction of the article being transferred, each nozzle having a separate coloring agent supply source connected therewith for supplying the coloring agent to the corresponding nozzle and a valve disposed between the nozzle and the coloring agent supply source and connected to the pulse count circuit, for spouting the coloring agents of respective colors different from each other of respective specific amount, as a single drop at a time, to form aligned spots on the outer surface of the article, toward the outer surface of the article, and control means to make a plurality of the nozzles spout the coloring agent, as a single drop at a time, toward the outer surface of the article according to the pattern in response to a signal from the pulse count circuit, and a pressurized gas supply source connected to the plurality of the coloring agent supply sources for supplying pressurized gas to the plurality of the coloring agent supply sources, where when the valve is opened, the coloring agents existing in the nozzles are spouted, as a single drop at a time, toward the outer surface of the article with the aid of bias of the pressurized gas supplied from the pressurized gas supply source in order to form round spots in a plan view on the outer surface of the article.

In the Office Action, Claims 1, 2, 3, 4, 5, 7 and 8 are rejected as obvious under 35 U.S.C. § 103(a) in view of a combination of Krogel (U.S. Patent No. 2,428,284), Unterberger (U.S. Patent No. 5,645,899) and Liautauel et al. (U.S. Patent No. 3,995,772); Claim 6 is rejected as obvious in

view of a combination of Krogel, Unterberger, Liautauel and Bleich (U.S. Patent No. 4,877,645); and Claim 9 is rejected as obvious in view of a combination of Krogel, Unterberger, Liautauel and Traut (U.S. Patent No. 5,237,917). Reconsideration and removal of these rejections are respectfully requested in view of the present claim amendments and the following remarks.

The technical feature of the present invention is to form round spots in plan view on the outer surface of the article (page 19, lines 17-18 of the present specification and FIG. 7) with the plurality of nozzles by driving each valve in response to the signal from the pulse count circuit, which counts the number of the pulse signals received from the pair of the rotors (page 25, line 7 to page 27, line 8 of the present specification and FIGS. 2 and 3).

Regarding the cited reference Krogel, the transfer speed of the electrical wire and swing of the nozzles is controlled with the speed control devices (15-16) (see FIG. 1). It is respectfully submitted that Krogel does not disclose that the opening/closing of the nozzles is controlled with the signal from the speed control devices (15-16).

Regarding the cited reference Unterberger, the pressure mechanism P2 (column 6, lines 20-24) and the micro-valve (MV) are controlled with control means STV (FIG. 1 and column 8, lines 20-25). It is respectfully submitted that Unterberger fails to disclose the detection of the speed of the electrical wire or the connection of the detected signal to the micro-valve (MV).

In view of the amendments to Claims 1 and 3, and the above remarks, removal of the above rejections is respectfully requested.

In view of the aforementioned amendments and accompanying remarks, Claims 1-9, as amended, are believed to be patentable and in condition for allowance, which action, at an early date, is requested.

In the event that this paper is not timely filed, the Applicants respectfully petition for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

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